

In re Application of: Judd *et al.*  
Application No.: 09/742,575  
Atty Docket No.: 39385.01P1

Examiner: J. Veillard  
Art Unit: 2175

### AMENDMENTS

#### In the Claims:

Please cancel Claims 1-12, 22-23, 25, 27, 30-35 and 60, and amend Claims 24, 26, 59 and 62, as follows:

1-12. (Cancelled).

13. (Withdrawn). A medical image database comprising:  
a first medical image generated using a first imaging format; and  
a second medical image generated using a second imaging format,  
wherein the second imaging format is different from the first imaging format.

14. (Withdrawn). The database of claim 13, wherein the first and second medical images have been converted to a common browser compatible image format and are stored in the database in the common browser image format.

15. (Withdrawn). The database of claim 13, wherein: the first medical image is generated from a first scanner manufactured by a first manufacturer; and the second medical image is generated from a second scanner manufactured by a second manufacturer.

16. (Withdrawn). The database of claim 13, wherein:  
the first medical image corresponds to a first modality; and  
the second medical image corresponds to a second modality.

17. (Withdrawn). The database of claim 16, wherein the first and second modalities are selected from the group consisting of: magnetic resonance imaging;

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echocardiographic imaging; nuclear scintigraphic imaging; positron emission tomography; electrocardiographic data; and x-ray imaging.

18. (Withdrawn). A medical image database comprising images corresponding to a plurality of different modalities, wherein the database is organized in a hierarchical data structure, comprising:

a patient identifier parameter; and

an image modality identifier parameter associated with at least one of the plurality of modalities wherein the patient identifier parameter is at a higher level in the hierarchical data structure than the image modality identifier parameter.

19. (Withdrawn). A medical image database comprising images corresponding to a plurality of different modalities, wherein the database is organized in a hierarchical data structure comprising:

an image modality identifier parameter associated with each of the plurality of modalities; and

an examination date identifier parameter wherein the examination date identifier parameter is at a lower level in the hierarchical data structure than the modality identifier parameter.

20. (Withdrawn). A medical imaging database comprising:

a plurality of images representing a plurality of different modality scans;

an image modality identifier parameter associated with each of the plurality of images;

an examination date identifier parameter associated with each of the plurality of images; and

a patient identifier parameter associated with each of the plurality of images.

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21. (Withdrawn). The database of claim 20, wherein each image is stored in a common image format, and wherein the common image format is browser compatible.

22-23. (Cancelled).

24. (Currently Amended). A method of managing medical images comprising:  
receiving a plurality of images corresponding to a plurality of modalities;  
and

displaying to a user at a client computer a selection comprising images  
associated with at least two different modalities; and

in response to the user selection, simultaneously displaying at the client  
computer images corresponding to at least two different modalities.

25. (Cancelled).

26. (Currently Amended). The method of claim 25 24, comprising displaying  
the images corresponding to the two modalities side-by-side.

27. (Cancelled).

28. (Withdrawn). A method of managing medical images comprising:  
in response to a request from a first user at a first client computer at a first  
location, displaying a medical image; and  
simultaneously displaying on a screen the medical image to a second user  
at a second location.

29. (Withdrawn). The method of claim 28, wherein displaying the medical  
image to the second user comprises displaying the medical image on a second client  
computer, wherein the first and second client computers are connected via a distributed  
network.

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30-35. (Cancelled).

36. (Original). A method of managing medical images comprising:  
linking a first scanner for a first modality and a second scanner for a second modality to a transfer engine via a distributed network;  
transferring medical images from the first and second scanners to the transfer engine; and  
converting the medical images to a common browser compatible format.

37. (Withdrawn). A method of managing medical images comprising:  
transferring medical images from a first scanner for a first modality to an image database; and  
transferring medical images from a second scanner for a second modality to the image database.

38. (Withdrawn). The method of claim 37, wherein transferring the medical images comprises converting the medical images to a common browser compatible image format.

39. (Withdrawn). The method of claim 37, comprising displaying on a web page at a client computer a selection comprising images corresponding to the first modality and images corresponding to the second modality.

40. (Withdrawn). The method of claim 37, comprising selecting an image from the image database in response to a user request and displaying the image to the user at a client computer.

41. (Withdrawn). A method of managing medical images comprising:  
converting a medical image data to Internet browser compatible format;

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determining a region of diagnostic interest of the medical image; and  
adjusting image quality of the medical image based upon the region of  
diagnostic interest.

42. (Withdrawn). The method of claim 41, wherein the medical image  
comprises a series of movie frames and adjusting the image quality comprises  
searching each movie frame for a brightest pixel.

43. (Withdrawn). The method of claim 42, comprising scaling each movie  
frame such that the brightest pixel is scaled to a maximum brightness level of a  
standard Internet compatible format.

44. (Withdrawn). The method of claim 41, comprising pulling at least two  
medical images, including the medical image, from at least two scanners.

45. (Withdrawn). The method of claim 44, wherein the at least two scanners  
are manufactured by at least two manufacturers.

46. (Withdrawn). The method of claim 44, wherein the at least two scanners  
generate images corresponding to at least two modalities.

47. (Withdrawn). The method of claim 41, comprising posting the converted  
medical image data to a medical image database.

48. (Withdrawn). The method of claim 41, comprising, in response to a user  
input, selecting at least one of a plurality of medical images.

49. (Withdrawn). The method of claim 48, comprising displaying the one  
medical image at a browser.

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50. (Withdrawn). The method of claim 41, comprising:  
displaying the converted image to a first user at a first location; and  
simultaneously displaying the converted image to a second user at a  
second location different from the first location.
51. (Original). A method of managing medical images comprising:  
pulling a first image data having a first data format from a first scanner;  
pulling a second image data having a second data format, different from  
the first data format, from a second scanner; and  
converting the first and second image data having the first and second  
data formats to a browser compatible data format.
52. (Original). A method of claim 51 comprising displaying at a user selected  
browser the first and second image data after the image data had been converted to the  
browser compatible format, whereby medical image data from two different image  
formats may both be displayed at an arbitrary browser.
53. (Withdrawn). A method of managing medical images for storage in a data  
base comprising:  
determining a region of diagnostic interest of a medical image; cropping  
the medical image to include the region of diagnostic  
interest and to reduce the data to be stored in the database; and  
storing the cropped medical image in the database.
54. (Withdrawn). The method of claim 53 comprising adjusting image quality  
based upon the region of diagnostic interest.
55. (Withdrawn). The method of claim 54, wherein the adjusting comprises  
scaling the image according to a standard Internet compatible format.

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56. (Withdrawn). An Internet address data format for accessing a database comprising medical images corresponding to a plurality of modalities from a plurality of scan dates and associated with a plurality of patients, wherein the images are stored in a browser compatible format and the address format comprises:

a patient identifier associated with each image;

a modality identifier associated with each image and positioned after the patient identifier; and

a scan date identifier associated with each image positioned after the patient identifier, whereby a user at a browser may select a desired image by entering an Internet address associated with the desired image.

57. (Withdrawn). The data format of claim 56, wherein the scan date identifier is after the modality identifier.

58. (Withdrawn). The data format of claim 56, comprising a website identifier positioned before the patient identifier.

59. (Currently Amended). A medical image management system comprising:  
a transfer engine for receiving medical image data from an image data source;

a converter engine for converting medical image data to a browser compatible image format connected to receive medical image data from the transfer engine, wherein the converter engine comprises:

a decoder engine for extracting image pixel data from image data;

a physiologic knowledge engine for reducing the image pixel data without loss of diagnostic data connected to receive the extracted pixel data; and

an encoding engine for converting image pixel data to a browser compatible format connected to receive image pixel data, whereby image data may be converted to the browser compatible format without loss of diagnostic data; and

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a post engine for posting the browser compatible image to a database connected to receive converted image data.

60. (Cancelled).

61. (Original). The system of claim 59, comprising a server connected for retrieving images from a database of browser compatible images in response to a user input.

62. (Currently Amended). The method of claim 4 61, comprising adjusting a movie frame rate based upon a priori knowledge.

63. (Original). The method of claim 62, wherein the a priori knowledge comprises physiological knowledge respectively associated with the medical images.

64. (Withdrawn). The method of claim 42, comprising setting a movie frame rate based on a diagnostic question.

65. (Withdrawn). The method of claim 42, comprising setting a movie frame rate based upon physiological information.

66. (Withdrawn). A method of managing medical images, comprising:  
retrieving from a database a plurality of medical images;  
displaying the plurality of medical images on a web page; and  
allowing a user to rearrange the display of the plurality of medical images on the web page.

67. (Withdrawn). The method of claim 66 wherein a CGI program is used to rearrange the display of the plurality of medical images on the web page.



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68. (Withdrawn). The method of claim 66 comprising the step of displaying the rearranged medical images on a new web page.

69. (Withdrawn). The method of claim 66 comprising the step of allowing a user to select a displayed image and designate a location on the web page at which the selected image is to be displayed when the display of the plurality of medical images is rearranged.

70. (Withdrawn). The method of claim 69 comprising the step of using an html image tag of the selected image when rearranging the display of the plurality of medical images.